Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for inhibiting or delaying apoptosis in vitro in a rat cell or corpus luteal cell, comprising administering to said cell an agent that is capable of inhibiting an apoptosis-induced DHS catalyzed chemical reaction, wherein the agent is selected from the group consisting of spermidine, 1,3-Diamino-propane, 1,4-Diamino-butane (putrescine), 1,7-Diamino-heptane, and 1,8-Diamino-octane; and

wherein said inhibiting apoptosis-induced DHS catalyzed chemical reaction reduces levels of activated apoptosis-induced eIF-5A or inhibits activation of apoptosis-induced eIF-5A; and

wherein said reduction of apoptosis-induced eIF-5A or inhibition of activation of apoptosis-induced eIF-5A inhibits or delays apoptosis.

Claims 2-86 (canceled)

Claim 87 (currently amended): A method for inhibiting or suppressing activation of apoptosis-induced eIF-5A in a rat cell or corpus luteal cell comprising administering an agent to the cell that is capable of inhibiting DHS catalyzed chemical reactions, wherein the agent is selected from the group consisting of exogenous spermidine, 1,3-Diamino-propane, 1,4-Diamino-butane (putrescine), 1,7-Diamino-heptane, and 1,8-Diamino-octane; and

wherein the agent is not administered at toxic levels; and

wherein the inhibiting apoptosis-induced DHS catalyzed chemical reactions ~~inhibits or reduces~~ inhibit or reduce an apoptosis cascade, said cascade comprising transferring a 4-aminobutyl residue from an endogenous spermidine to a ε-amino group of a conserved lysine on an inactive apoptosis-induced eIF-5A, said transferring converting the lysine to a deoxyhypusine, and wherein a deoxyhypusine hydroxylase converts the deoxyhypusine to hypusine;

and wherein inhibition or reduction of said apoptosis cascade reduces an amount of activated apoptosis-induced eIF-5A or inhibits activation of apoptosis-induced eIF-5A in the cell.

Claim 88 (currently amended): A method for inhibiting or delaying apoptosis in a ~~mammalian~~ rat cell or corpus luteal cell, comprising administering to said cell an agent that is capable of inhibiting an apoptosis-induced DHS catalyzed chemical reaction, wherein the agent is spermidine, 1,3-Diamino-propane, 1,4-Diamino-butane (putrescine), 1,7-Diamino-heptane, or 1,8-Diamino-octane; and
wherein the agent is not administered at toxic levels; and
wherein said inhibiting apoptosis-induced DHS catalyzed chemical reaction reduces levels of activated apoptosis-induced eIF-5A or inhibits activation of apoptosis-induced eIF-5A; and
wherein said reduction of apoptosis-induced eIF-5A or inhibition of activation of apoptosis-induced eIF-5A inhibits or delays apoptosis in said cell.

Claim 89 (previously presented): A method for inhibiting or delaying apoptosis in rat corpus luteum, comprising administering to said cell spermidine,
wherein the spermidine inhibits an apoptosis-induced DHS catalyzed chemical reaction to reduce levels of activated apoptosis-induced eIF-5A or to inhibit activation of apoptosis-induced eIF-5A; and
wherein said reduction of apoptosis-induced eIF-5A or inhibition of activation of apoptosis-induced eIF-5A inhibits or delays apoptosis.